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The prospect for studying $n\pi^+\pi^0$ electroproduction off protons with CLAS12 GLEB FEDOTOV, KENNETH HICKS, Ohio Univ, IULIIA SKORODUMINA, University of South Carolina, CLAS COLLABORATION — Investigation of double-pion electroproduction channel is a very efficient tool for exploration of nucleon structure that includes the study of nucleon resonances. The experiments conducted with the CLAS detector have already provided a lot of data on the cross sections of the reaction $\gamma_v p \to p'\pi^+\pi^-$. Their interpretation within the phenomenological model has delivered valuable information on nucleon resonances electrocouplings. Another promising channel, for the $n\pi^+\pi^0$ final state, has not yet been investigated using the CLAS detector due to the limited angular coverage of π^0 detection. The cross section of this so far unexplored channel benefits from larger relative resonant contribution comparing to the reaction with the $p\pi^+\pi^-$ final state. New opportunities for studying the $n\pi^+\pi^0$ final state are possible with the CLAS12 detector, which has significantly larger angular coverage for π^0 detection than CLAS. The study of a new channel requires an adaptation of the experimental analysis tools and the phenomenological reaction model which were previously established for $\gamma_v p \to p'\pi^+\pi^-$ channel. The status of this activity will be presented in the talk.

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